

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: METALUX

Report Number: P893871

Luminaire Tested: 4MB-7HL-RFLW-UNV-L940

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P893871
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2408-210-7)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-7HL-RFLW-UNV-L940
Description: 7000 Lumen 4FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 90CRI, 4000K
Light Source: -
Ballast/Driver: -

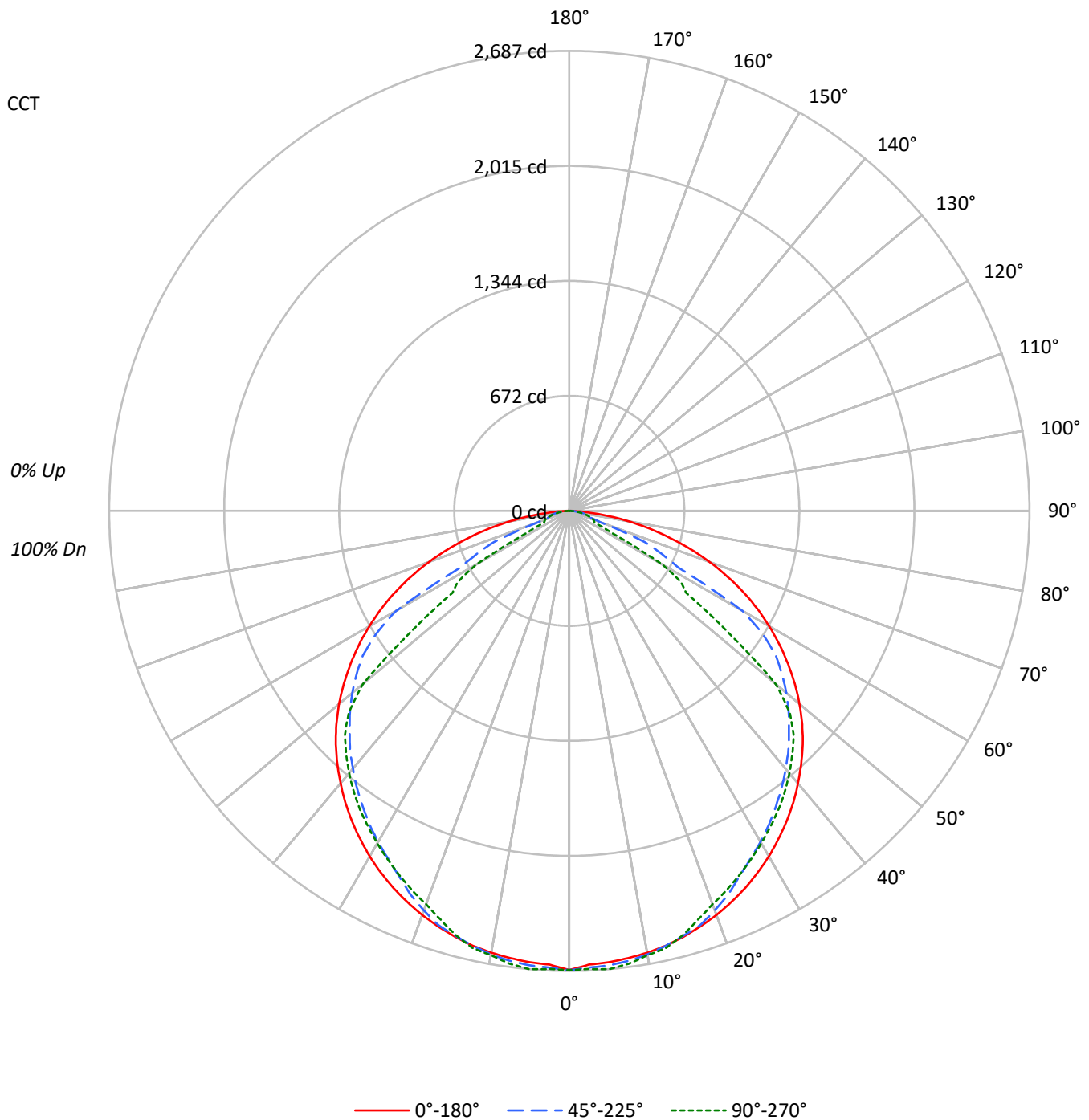
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6991.0 lumens
Efficiency: N/A
Efficacy: 135.0 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.25 / 1.38
Luminous Opening: Rectangular (W 0.21' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 51.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 4
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
RC	80				70				50				30				10			0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	88	88	88	86
2	101	93	87	82	98	91	85	81	88	83	79	85	81	77	82	78	75	75	75	75	73
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	65	65	65	62
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	56	56	56	54
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49	49	49	49	47
6	72	59	51	44	70	58	50	44	56	49	44	55	48	43	53	48	43	43	43	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	38	38	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34	34	34	34	32
9	58	45	37	32	57	44	37	31	43	36	31	42	36	31	41	35	31	31	31	31	29
10	54	42	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	28	28	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	34821	34821	34821
5°	34501	34728	35019
10°	34552	34683	34749
15°	34628	34550	34472
20°	34715	34315	33790
25°	34810	33708	33638
30°	34942	33480	33616
35°	35069	33352	33758
40°	35217	33312	33900
45°	35405	33295	34039
50°	35459	33421	31803
55°	35303	33320	18858
60°	35003	30367	16353
65°	34431	18358	4950
70°	33068	7278	5680
75°	30639	5970	5805
80°	26509	6304	5436
85°	18832	5915	5170

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 35459 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	254.0	3.6
10°-20°	727.4	10.4
20°-30°	1099.3	15.7
30°-40°	1341.2	19.2
40°-50°	1418.8	20.3
50°-60°	1175.1	16.8
60°-70°	653.2	9.3
70°-80°	264.8	3.8
80°-90°	57.1	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2080.7	29.8
0°-40°	3422.0	48.9
0°-60°	6015.9	86.1
0°-90°	6991.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6991.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2682	2682	2682	2682	2682	
5°	2647	2694	2664	2668	2687	252
15°	2576	2616	2570	2568	2564	728
25°	2430	2447	2353	2338	2348	1121
35°	2212	2185	2104	2112	2130	1385
45°	1928	1829	1813	1835	1854	1486
55°	1559	1454	1472	1010	833	1393
65°	1121	1027	598	201	161	1105
75°	611	340	119	117	116	645
85°	126	42	40	36	35	159
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2681.6	2681.6	2681.6	2681.6	2681.6
2.5°	2652.7	2699.0	2670.1	2675.9	2678.3
5°	2646.9	2694.0	2664.3	2668.4	2686.6
7.5°	2634.5	2682.5	2651.1	2653.5	2667.6
10°	2620.5	2664.3	2630.4	2626.3	2635.4
12.5°	2601.5	2641.2	2601.5	2603.1	2614.7
15°	2575.9	2615.5	2570.1	2568.4	2564.3
17.5°	2545.3	2582.5	2537.9	2511.4	2502.3
20°	2512.2	2541.2	2483.3	2442.8	2445.3
22.5°	2472.6	2497.4	2424.6	2387.5	2398.2
25°	2429.6	2447.0	2352.7	2337.9	2347.8
27.5°	2382.5	2395.7	2290.8	2287.5	2295.7
30°	2330.4	2335.4	2232.9	2231.3	2242.0
32.5°	2272.6	2264.3	2170.9	2172.6	2186.6
35°	2212.3	2185.0	2104.0	2112.3	2129.6
37.5°	2148.6	2099.9	2037.9	2048.6	2067.6
40°	2077.6	2011.4	1965.2	1981.7	1999.9
42.5°	2004.8	1918.9	1894.9	1910.6	1928.0
45°	1928.0	1828.8	1813.1	1835.4	1853.6
47.5°	1844.5	1740.4	1737.9	1755.3	1747.0
50°	1755.3	1648.7	1654.4	1631.3	1574.3
52.5°	1659.4	1553.6	1565.2	1465.2	1184.2
55°	1559.4	1453.6	1471.8	1009.9	833.0
57.5°	1456.9	1351.2	1339.6	772.7	771.9
60°	1347.8	1247.0	1169.3	682.6	629.7
62.5°	1237.9	1138.8	718.1	514.0	289.2
65°	1120.6	1027.2	597.5	200.8	161.1
67.5°	997.5	914.0	478.5	151.2	157.0
70°	871.0	796.6	191.7	146.3	149.6
72.5°	742.1	614.8	127.3	135.5	135.5
75°	610.7	340.5	119.0	117.3	115.7
77.5°	480.1	228.1	104.1	96.7	94.2
80°	354.5	81.8	84.3	75.2	72.7
82.5°	234.7	63.6	60.3	54.5	52.9
85°	126.4	42.1	39.7	36.4	34.7
87.5°	45.5	21.5	21.5	17.4	15.7
90°	0.0	0.0	0.0	0.0	0.0



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	25.01	26.59	25.38	26.90	27.21	21.00	22.58	21.37	22.89	23.20
	3H	27.02	28.43	27.40	28.75	29.12	21.13	22.54	21.51	22.87	23.23
	4H	27.63	28.95	28.03	29.30	29.68	21.25	22.57	21.65	22.92	23.30
	6H	28.03	29.25	28.44	29.61	30.01	21.36	22.58	21.77	22.94	23.34
	8H	28.15	29.31	28.58	29.70	30.10	21.40	22.55	21.82	22.94	23.34
	12H	28.22	29.33	28.65	29.71	30.14	21.42	22.53	21.85	22.91	23.34
4H	2H	25.14	26.46	25.54	26.81	27.19	21.73	23.05	22.13	23.40	23.77
	3H	27.30	28.39	27.71	28.79	29.19	21.93	23.01	22.34	23.41	23.81
	4H	27.96	28.93	28.39	29.35	29.79	22.08	23.06	22.51	23.47	23.91
	6H	28.40	29.25	28.86	29.69	30.15	22.25	23.09	22.70	23.54	24.00
	8H	28.54	29.34	29.01	29.78	30.25	22.30	23.09	22.76	23.53	24.00
	12H	28.65	29.36	29.13	29.83	30.30	22.34	23.05	22.83	23.53	24.00
8H	4H	27.89	28.69	28.36	29.13	29.60	22.35	23.15	22.82	23.59	24.06
	6H	28.34	28.99	28.83	29.48	29.96	22.56	23.22	23.06	23.71	24.18
	8H	28.48	29.07	29.00	29.58	30.07	22.64	23.23	23.16	23.74	24.23
	12H	28.61	29.14	29.12	29.63	30.19	22.73	23.25	23.24	23.74	24.31
12H	4H	27.87	28.58	28.35	29.05	29.52	22.37	23.08	22.85	23.55	24.02
	6H	28.29	28.88	28.81	29.39	29.88	22.58	23.17	23.09	23.68	24.16
	8H	28.47	28.99	28.97	29.48	30.04	22.70	23.22	23.21	23.71	24.28